

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the above-identified application.

Listing of Claims

1. (Previously Presented) A method comprising:
forming a tungsten plug in a dielectric layer;
forming an electrically conductive interconnect line on the dielectric layer after formation of the tungsten plug, wherein the tungsten plug is electrically connected to the electrically conductive interconnect line;
contacting the electrically conductive interconnect line with liquid water after formation of the electrically conductive interconnect line;
contacting the electrically conductive interconnect line with a solution to remove residual polymer after the electrically conductive interconnect line is contacted with the liquid water;
wherein the electrically conductive interconnect line is contacted with the liquid water for less than 120 minutes.
2. (Previously Presented) The method of claim 1 wherein the liquid water is degasified and deionized.
3. (Previously Presented) The method of claim 1 wherein the liquid water is deionized but not degasified.
4. (Previously Presented) The method of claim 1 wherein the liquid water is degasified but not deionized.
5. (Previously Presented) The method of claim 1 wherein the liquid water is neither degasified nor deionized.

6. (Previously Presented) The method of claim 1 wherein the liquid water has a pH that is at or near neutral.

7. (Previously Presented) The method of claim 1 wherein the electrically conductive interconnect line is contacted with the liquid water for less than 60 minutes.

8. (Previously Presented) The method of claim 1 wherein the electrically conductive interconnect line is contacted with the liquid water for less than 15 minutes.

9. (Previously Presented) The method of claim 1 wherein the electrically conductive interconnect line is formed from a metal stack that includes one or more of titanium, titanium nitride, aluminum, an aluminum copper alloy, and an aluminum silicon copper alloy.

10. - 26. (Canceled).

27. (Currently Amended) A method comprising:
forming a tungsten plug in a dielectric layer;
forming an electrically conductive interconnect line on the dielectric layer after formation of the tungsten plug, wherein the tungsten plug is electrically connected to the electrically conductive interconnect line;
contacting the electrically conductive interconnect line with liquid water having a pH slightly less than neutral after formation of the electrically conductive interconnect line;
contacting the electrically conductive interconnect line with a solution to remove residual polymer after the electrically conductive interconnect line is contacted with the liquid water;
wherein the electrically conductive interconnect line is contacted with the liquid water for less than 120 minutes.

28. (Previously Presented) The method of claim 27 wherein the liquid water is degasified and deionized.

29. (Previously Presented) The method of claim 27 wherein the liquid water is deionized but not degasified.

30. (Previously Presented) The method of claim 27 wherein the liquid water is degasified but not deionized.

31. (Previously Presented) The method of claim 27 wherein the liquid water is neither degasified nor deionized.

32. (Previously Presented) A method comprising:
forming a tungsten plug in a dielectric layer;
forming an electrically conductive interconnect line on the dielectric layer after formation of the tungsten plug, wherein the tungsten plug is electrically connected to the electrically conductive interconnect line;
contacting the electrically conductive interconnect line with liquid water after formation of the electrically conductive interconnect line;
contacting the electrically conductive interconnect line with a solution to remove residual polymer on the electrically conductive interconnect line after the electrically conductive interconnect line is contacted with the liquid water;
wherein the electrically conductive interconnect line is contacted with the liquid water for less than 120 minutes.

33. (Previously Presented) The method of claim 32 wherein the liquid water is degasified and deionized.

34. (Previously Presented) The method of claim 32 wherein the liquid water is deionized but not degasified.

35. (Previously Presented) The method of claim 32 wherein the liquid water is degasified but not deionized.

- 36. (Previously Presented) The method of claim 32 wherein the liquid water is neither degasified nor deionized.
- 37. (Previously Presented) The method of claim 32 wherein the liquid water has a pH that is at or near neutral.